

## CLAIMS

1. An image processing system for reduction of the noise and enhancement of edges in images of a sequence, comprising:

5 means of decomposition of spatial image signal yielding slices of different content;

means of temporal filtering for differently filtering the slices according to the content;

10 means of recomposition of the images of the sequence from the temporally filtered slices.

2. The system of Claim 1 wherein the decomposition is performed using means of pyramidal decomposition.

15 3. The system of Claim 1 wherein the means of temporal filtering comprises adaptive filtering.

4. The system of Claim 1 wherein the means of temporal filtering comprises motion compensation.

20 5. The system of Claim 1 wherein the means of temporal filtering comprises recursive adaptive filtering.

25 6. The system of one of Claims 1 to 5, further comprising imaging means for displaying the images of the sequence.

7. An imaging apparatus comprising a suitably programmed computer or a special purpose processor having circuit means, which are arranged to process images, to be used in a system as claimed in one of Claims 1 to 6.

30 8. A computer program product comprising a set of instructions for carrying out an image processing to be used in a system as claimed in one of Claims 1 to 6.

9. A medical examination imaging apparatus having means for acquiring a sequence of medical images and having a viewing system for processing and for displaying said sequence of images according to one of Claims 1 to 6.